CONDITION

Vasculitis

Vasculitis is inflammation of blood vessels that can reduce blood flow and damage organs.

WHAT IT IS
Inflammation that damages blood vessel walls

BODY SYSTEM
Blood vessels and any organs they supply

MAIN SYMPTOMS
Fatigue, fever, skin rash, nerve or organ symptoms

WHAT CAUSES IT
Usually immune inflammation; sometimes infection, medicines, or unknown triggers

HOW IT IS DIAGNOSED
Blood and urine tests, imaging, and often tissue biopsy

MAIN TREATMENT
Steroids and other immune-suppressing medicines

CAN IT BE CURED?
Sometimes - some forms resolve; others relapse

IS IT AN EMERGENCY?
Sometimes - sudden organ damage or severe bleeding

LONG-TERM OUTLOOK
Often manageable, but organ damage and relapses can occur

Overview

Vasculitis means inflammation of the blood vessels. It is a group of related conditions rather than one single illness. The inflammation can make vessel walls swollen, narrowed, blocked, or weakened.

Blood vessels carry oxygen and nutrients throughout your body. When inflammation reduces blood flow, the tissues supplied by that vessel may be injured. This means vasculitis can affect almost any organ, including the skin, kidneys, lungs, nerves, eyes, heart, or brain.

Doctors often group vasculitis by the size of vessel involved: small, medium, or large. Individual forms include giant cell arteritis, granulomatosis with polyangiitis, microscopic polyangiitis, IgA vasculitis, Kawasaki disease, and several others. Each has its own typical age group, symptoms, and treatment.

Some forms affect only one organ and settle after treatment. Others are long-term conditions that can return after a period of remission, when inflammation is well controlled. Prompt assessment matters because treatment can limit permanent organ damage.

Symptoms

Symptoms differ widely because they are linked to the blood vessels and organs affected. They may develop over days, weeks, or months.

General signs of inflammation can include:

Skin involvement may cause red or purple spots that do not fade when pressed, bruising, lumps, ulcers, or an itchy rash. These changes often appear on the legs, but they can occur elsewhere.

Inflamed nerves may cause burning pain, numbness, tingling, or sudden weakness in a hand or foot. Kidney inflammation may cause blood or protein in the urine without obvious symptoms. Some people develop leg swelling or high blood pressure.

Lung involvement can cause breathlessness, chest discomfort, or coughing, sometimes with blood. Digestive symptoms can include persistent abdominal pain, nausea, or blood in the stool.

Large-vessel vasculitis may cause arm or leg pain during use, unequal pulses, headaches, scalp tenderness, or jaw pain while chewing. Inflammation involving vessels around the eye can cause blurred, double, or lost vision.

These symptoms have many possible causes. Having one of them does not mean you have vasculitis.

- Tiredness, fever, night sweats, or feeling unwell
- Loss of appetite or unintended weight loss
- Muscle or joint aches
- Headaches

Causes and risk factors

In most forms, the immune system mistakenly attacks blood vessel walls. The exact trigger is often unknown.

Some cases occur alongside another immune condition, such as rheumatoid arthritis, lupus, or inflammatory bowel disease. Certain infections can cause or trigger specific forms of

vasculitis. Rarely, a medicine may be involved. Blood cancers and other cancers can also be associated with vasculitis, although this is uncommon.

Vasculitis itself is not contagious. If an infection contributed to it, the infection may be transmissible, but the blood vessel inflammation cannot be passed to another person.

Risk factors are different for each type. Giant cell arteritis occurs in adults over 50, while Kawasaki disease occurs mainly in young children. Smoking is linked to a higher risk of some forms, including Buerger disease.

Most vasculitis is not directly inherited. Genes may affect susceptibility, but having a relative with vasculitis does not usually mean that you will develop it.

Diagnosis

There is no single test that identifies every form of vasculitis. Diagnosis usually combines your symptoms, examination, laboratory results, scans, and sometimes a biopsy.

Blood tests can look for inflammation, anemia, infection, and changes in kidney or liver function. Tests for particular antibodies, including antineutrophil cytoplasmic antibodies, or ANCA, can support the diagnosis of certain small-vessel forms. An antibody result cannot confirm or exclude vasculitis by itself.

Urine tests are important because blood or protein may be an early sign of kidney inflammation, even if your urine looks normal.

Imaging may show narrowing, thickening, blockage, or bulging of blood vessels. The type of scan may include ultrasound, CT, MRI, PET, or angiography. Angiography produces detailed pictures of blood vessels.

A biopsy removes a small tissue sample for examination under a microscope. Depending on the symptoms, the sample may come from the skin, kidney, artery, nerve, lung, or another affected area. A biopsy can show inflammation and blood vessel damage and often provides the strongest confirmation.

Doctors also check for other explanations, including infection, blood clots, cancer, and other immune conditions. Identifying the exact type is important because treatments and risks are not the same for every form.

Treatment and management

Treatment aims to stop blood vessel inflammation, protect organs, and reduce the chance of

relapse. The plan is based on the type of vasculitis, its severity, the organs involved, and whether an infection or medicine contributed.

Corticosteroids like prednisone or hydrocortisone , often called steroids, are commonly used to bring inflammation under control. They work quickly but can cause side effects, particularly with higher doses or longer use. These may include infection, raised blood sugar, bone thinning, weight gain, mood changes, and eye problems.

Other medicines that reduce or change immune activity may be used with steroids or in place of part of the steroid treatment. These include conventional immune-suppressing medicines and targeted biologic medicines. More intensive treatment may be needed when the kidneys, lungs, brain, heart, eyes, or other vital organs are threatened.

Once inflammation is controlled, some people need maintenance treatment to help prevent relapse. Treatment may continue for months or years. Medicines should not be stopped suddenly or changed without advice, especially corticosteroids.

If vasculitis is linked to an infection, treatment may need to address that infection as well. If a medicine is suspected, a clinician can assess whether it should be stopped or replaced. Do not stop a prescribed medicine on your own unless urgent medical advice tells you to do so.

Monitoring may include blood pressure checks, blood and urine tests, imaging, and assessment for treatment side effects. Vaccination and measures to protect bones or reduce infection risk may be discussed according to the medicines being used.

Occasionally, surgery or another procedure is needed to repair a severely narrowed or weakened blood vessel. This treats structural damage rather than the underlying inflammation.

Complications

Complications result either from reduced blood flow, bleeding from a damaged vessel, or treatment side effects. The specific risks depend on the organs involved.

Possible complications include:

Early treatment lowers the risk of some complications, but existing tissue damage may not fully recover. Regular monitoring helps identify silent problems, such as kidney changes or medicine-related effects.

- Permanent kidney damage or kidney failure
- Lung bleeding or lasting breathing problems
- Nerve damage, weakness, or chronic pain

- Loss of vision, stroke, or heart problems
- Aneurysm, where a weakened vessel wall bulges
- Blood clots or reduced blood supply to a limb
- Serious infection during immune-suppressing treatment

Prevention

Most forms of vasculitis cannot be prevented because their exact cause is unknown. Inherited susceptibility or an unpredictable immune response cannot be removed through diet, exercise, or supplements.

You can reduce some avoidable risks. Do not smoke, and seek advice about recommended vaccinations if you take immune-suppressing medicine. Attend planned blood, urine, blood pressure, and imaging checks. These steps do not prevent vasculitis itself, but they can help prevent treatment complications or detect a relapse earlier.

If a medicine or infection caused a previous episode, your healthcare team can record this and advise how to reduce the chance of another exposure.

Living with it and what to expect

The course of vasculitis is different for each type. Some single episodes settle completely. Others alternate between remission and relapse. Remission means the inflammation is controlled; it does not always mean the condition has been permanently cured.

Symptoms such as fever, rashes, and general illness may improve as inflammation settles. Recovery from nerve, kidney, lung, or other organ damage may take longer. Some damage can be permanent even when blood tests show that the vasculitis is no longer active.

Follow-up is often needed for months or years. Appointments may focus on signs of relapse, organ function, cardiovascular health, and medicine side effects. A change in a blood marker alone does not always mean the condition has returned; symptoms, examination, urine results, and scans may also matter.

Fatigue can continue during recovery. Gradually returning to activity may be more manageable than trying to resume everything at once. Work, school, exercise, and travel are often possible, although adjustments may be needed during active inflammation or intensive treatment.

Many people achieve good control and continue their usual activities. Others live with lasting pain, weakness, reduced organ function, or repeated relapses. Your likely course is influenced

by the particular form, how quickly organ involvement is treated, and how well treatment controls inflammation.

When to get medical help

Arrange routine medical advice if you develop a persistent unexplained rash, fever, weight loss, unusual fatigue, muscle or joint pain, numbness, or weakness. These symptoms are not usually emergencies, but they should be assessed if they persist or occur together.

If you already have vasculitis, contact your healthcare team promptly about returning symptoms, new swelling, changes in urine, worsening breathlessness, new numbness, or possible medicine side effects. Fever during immune-suppressing treatment may indicate an infection and deserves prompt advice.

Seek emergency care for:

These symptoms can indicate serious damage to an organ or blood vessel. They also have other possible causes, but urgent assessment is important.

- Sudden loss or major change in vision
- New facial droop, speech difficulty, confusion, or one-sided weakness
- Severe chest pain, collapse, or marked breathing difficulty
- Coughing up more than small streaks of blood
- Severe or rapidly worsening abdominal pain
- A cold, pale, very painful, or suddenly weak limb
- Heavy bleeding, black stools, or vomiting blood
- A sudden severe headache unlike your usual headaches

Common questions

Is vasculitis cancer?

No. Vasculitis is blood vessel inflammation, not cancer. Rarely, it can occur alongside a blood cancer or another cancer. Tests may be needed if symptoms or blood results suggest an underlying condition.

Is vasculitis an autoimmune condition?

Many forms are immune-mediated, meaning the immune system contributes to inflammation.

Some are considered autoimmune conditions. Others are linked to infection, medicines, or another illness, and the trigger may remain unknown.

Can vasculitis go away completely?

Sometimes. Certain forms may occur once and resolve. Other forms can enter long periods of remission but later relapse. Even after inflammation stops, organ or nerve damage may continue to cause symptoms.

What does a vasculitis rash look like?

A common appearance is clusters of red or purple spots, often on the lower legs, that do not turn pale when pressed. Vasculitis can also cause bruising, raised lumps, ulcers, or other rashes. Appearance alone cannot confirm the cause.

Can a blood test prove that I have vasculitis?

Usually not by itself. Inflammation markers and antibody tests can support a diagnosis, but they can also be abnormal for other reasons. Urine tests, imaging, and a tissue biopsy may be needed to confirm the type and organs involved.

Can I exercise with vasculitis?

Many people can exercise when their condition is controlled. During active inflammation, severe fatigue, heart or lung involvement, nerve weakness, or blood vessel narrowing may limit what is safe. Activity is usually increased gradually according to symptoms and organ health.

Sources

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